Figure 1: Cross Sectional View of Semiconductor Device

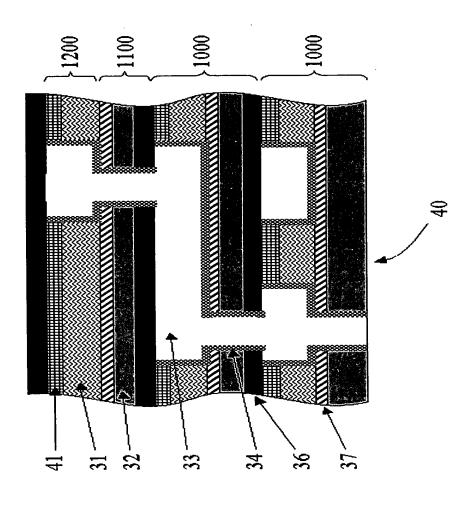
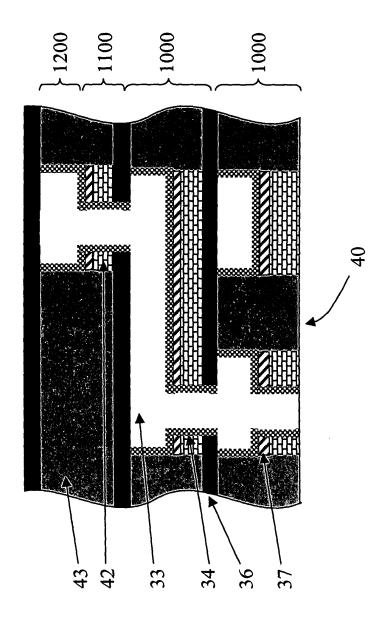


Figure 2: Cross Sectional View of Semiconductor Device



5. Apply adhesion promoter to

polymeric preceramic precursor film (optional)

preceramic precursor film into ceramic diffusion barrier layer

6. Convert polymeric

7. Apply adhesion promoter to ceramic diffusion barrier layer

(optional)

3. Apply adhesion promoter to 2. Clean subsrate (optional) substrate (optional) polymeric preceramic precursor 1. Prepare solution containing solvent based approach 4. Coat substrate by using solution

Figure 3: General Process Flow for Generation of Ceramic Diffusion Barrier Layer

Figure 4: Electrical Data of Ceramic Diffusion Barrier Layer Generated from Polysilazane Polymer Preceramic Precursor

